

*Grant*

a humoral immune response specific for at least one antigen of the target cell or target virus is induced.

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REMARKS

The amendments in the Specification are made to correct obvious inadvertent clerical errors. None of the amendments made herein constitutes addition of new matter. A marked-up copy of claims 30, 31, 32, 33 and 44 is attached hereto in accordance with Patent Office requirements.

It is believed that this response with amendment does not necessitate the payment of any fees under 37 C.F.R. 1.16-1.17 and that no extension of time is needed. If this is incorrect, however, please grant a petition for the necessary extension of time and charge any fee due under the foregoing Rules to Deposit Account No. 07-1969.

Respectfully submitted,



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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: :  
Compans et al. : Group Art Unit: 1614  
Serial No: 09/733,166 : Examiner: Not yet assigned  
Filed: December 8, 2000  
For: INDUCTION OF IMMUNOGLOBULIN  
CLASS SWITCHING BY INACTIVATED  
VIRAL VACCINE

Paragraph at page 6, from line 24 through page 7, line 2.

FIG. 2: Antibody responses and isotype distribution of virus-specific IgG in mice immunized intraperitoneally. CD4<sup>+</sup> T cell deficient mice (n = 5) were immunized intraperitoneally with formalin-inactivated PR8 influenza virus (10µg/mouse) on day 0 and boosted on day 15. Serum samples were collected 15 days after priming and 10 days after boosting. Con: control, unimmunized [CF4<sup>+</sup>] CD4<sup>+</sup> T cell deficient mice. First: after first immunization. Boost: after boost.

Paragraph at page 11, from line 29 through page 12, line 2.

**The magnitude of IgG responses to inactivated PR8 virus is age-dependent.** We also examined whether younger CD4<sup>+</sup> T cell knockout mice produced lower levels of IgG responses than older mice. In this experiment, 6 week old CD4<sup>+</sup> T cell deficient C57B/6 mice were immunized intramuscularly with formalin-inactivated PR8 virus. A significant amount of IgM and all four subclasses of IgG were produced, but their levels on the average were 5-6 fold lower than those of the 16 week old mice. IgG1 is predominant among the four [subclasses] subclassed of IgG, similar to the pattern of that of the old mice (Fig. 7). These data indicate that younger CD4<sup>+</sup> T cell knockout mice produce lower levels of IgG responses than older mice.

30. The [method] immunogenic composition of claim 21 wherein the at least one antigen of a target cell is from a bacterial pathogen cell.
31. The [method] immunogenic composition of claim 30 wherein the bacterial pathogen cell has a sialic acid capsule and wherein said capsule is present in said immunogenic composition.
32. The [method] immunogenic composition of claim 31 wherein said bacterial pathogen is *Neisseria meningitidis*.
33. The [method] immunogenic composition of claim 30 wherein said bacterial pathogen is *Escherichia coli*.
44. A method for inducing an immune response in a human or animal, said method comprising the steps of administering an immunogenic composition comprising a sialic acid binding [compo] component and at least one antigen of a target cell or target virus, whereby a humoral immune response specific for at least one antigen of the target cell or target virus is induced.